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(FILE 'HOME' ENTERED AT 09:18:15 ON 01 OCT 2003)

INDEX 'ADISCTI, ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, AQUASCI, BIOBUSINESS, BIOCOMMERCE, BIOSIS, BIOTECHABS, BIOTECHDS, BIOTECHNO, CABA, CANCERLIT, CAPLUS, CEABA-VTB, CEN, CIN, CONFSCI, CROPB, CROPU, DDFB, DDFU, DGENE, DRUGB, DRUGLAUNCH, DRUGMONOG2, ...' ENTERED AT 09:19:19 ON 01 OCT 2003

SEA (FUSION PROTEIN) OR (HYBRID PROTEIN) OR (CHIMER? PROTEIN)

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293 FILE CONFSCI
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1402 FILE PROMT
3 FILE RDISCLOSURE

23390 FILE SCISEARCH
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22060 FILE TOXCENTER
28370 FILE USPATFULL
740 FILE USPAT2
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203 FILE VETU
6023 FILE WPIDS
6023 FILE WPINDEX

L1 QUE (FUSION PROTEIN) OR (HYBRID PROTEIN) OR (CHIMER? PROTEIN)

FILE 'MEDLINE, CAPLUS, USPATFULL, BIOSIS, EMBASE, BIOTECHNO, SCISEARCH,
TOXCENTER, CANCERLIT, ESBIODBASE, LIFESCI, BIOTECHDS' ENTERED AT 09:23:20
ON 01 OCT 2003

L2 1095 S L1 AND GLYCOSYLTRANSFERASE
L3 688 S L1 AND SIALYLTRANSFERASE
L4 217 S L3 AND SYNTHETASE
L5 206 DUP REM L4 (11 DUPLICATES REMOVED)

=> log Y

L5 ANSWER 202 OF 206 MEDLINE on STN DUPLICATE 3

ACCESSION NUMBER: 1998368159 MEDLINE

DOCUMENT NUMBER: 98368159 PubMed ID: 9702777

TITLE: The synthesis of sialylated oligosaccharides using a
CMP-Neu5Ac **synthetase/sialyltransferase**
fusion.

COMMENT: Comment in: Nat Biotechnol. 1998 Aug;16(8):720-1

AUTHOR: Gilbert M; Bayer R; Cunningham A M; DeFrees S; Gao Y;
Watson D C; Young N M; Wakarchuk W W

CORPORATE SOURCE: Institute for Biological Sciences, National Research
Council of Canada, Ottawa, Ontario, Canada.

SOURCE: NATURE BIOTECHNOLOGY, (1998 Aug) 16 (8) 769-72.
Journal code: 9604648. ISSN: 1087-0156.

PUB. COUNTRY: United States

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 199810

ENTRY DATE: Entered STN: 19981029

Last Updated on STN: 19981029

Entered Medline: 19981022

AB Large-scale enzymatic synthesis of oligosaccharides, which contain
terminal N-acetyl-neuraminic acid residues requires large amounts of the
sialyltransferase and the corresponding sugar-nucleotide
synthetase, which is required for the synthesis of the
sugar-nucleotide donor, CMP-Neu5Ac. Using genes cloned from Neisseria
meningitidis, we constructed a **fusion protein** that has
both CMP-Neu5Ac **synthetase** and alpha-2,3-
sialyltransferase activities. The **fusion**
protein was produced in high yields (over 1200 U/L, measured using
an alpha-2,3-**sialyltransferase** assay) in Escherichia coli and
functionally pure enzyme could be obtained using a simple protocol. In
small-scale enzymatic syntheses, the **fusion protein**
could sialylate various oligosaccharide acceptors (branched and linear)
with N-acetyl-neuraminic acid as well as N-glycolyl- and
N-propionyl-neuraminic acid in high conversion yield. The **fusion**
protein was also used to produce alpha-2,3-sialyllactose at the
100 g scale using a sugar nucleotide cycle reaction, starting from
lactose, sialic acid, phosphoenolpyruvate, and catalytic amounts of ATP
and CMP.

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L3: Entry 1 of 4

File: PGPB

Sep 25, 2003

PGPUB-DOCUMENT-NUMBER: 20030180928
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20030180928 A1

TITLE: Fusion protein comprising a UDP-Galnac 4' epimerase and a galnac transferase

PUBLICATION-DATE: September 25, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Gilbert, Michel	Hull		CA	
Young, N. Martin	Gloucester		CA	
Wakarchuk, Warren W.	Gloucester		CA	

US-CL-CURRENT: [435/193](#); [435/320.1](#), [435/325](#), [435/6](#), [435/69.7](#), [536/23.2](#)

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KIMC	Draw Desc	Image
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☐ 2. Document ID: US 20020034805 A1

L3: Entry 2 of 4

File: PGPB

Mar 21, 2002

PGPUB-DOCUMENT-NUMBER: 20020034805
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20020034805 A1

TITLE: FUSION PROTEINS FOR USE IN ENZYMATIC SYNTHESIS OF OLIGOSACCHARIDES

PUBLICATION-DATE: March 21, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
GILBERT, MICHEL	HULL		CA	
YOUNG, N. MARTIN	GLOUCESTER		CA	
WAKARCHUK, WARREN W.	GLOUCESTER		CA	

US-CL-CURRENT: [435/193](#); [435/183](#), [435/200](#), [435/320.1](#), [435/325](#), [536/23.2](#)

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KIMC	Draw Desc	Image
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☐ 3. Document ID: US 20020009730 A1

L3: Entry 3 of 4

File: PGPB

Jan 24, 2002

PGPUB-DOCUMENT-NUMBER: 20020009730
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20020009730 A1

TITLE: Human stress array

PUBLICATION-DATE: January 24, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Chenchik, Alex	Palo Alto	CA	US	
Lukashev, Matvey E.	Newton	MA	US	

US-CL-CURRENT: 435/6; 536/24.3

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KWIC	Draw. Desc	Image
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☐ 4. Document ID: US 20020001831 A1

L3: Entry 4 of 4

File: PGPB

Jan 3, 2002

PGPUB-DOCUMENT-NUMBER: 20020001831
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20020001831 A1

TITLE: Low cost manufacture of oligosaccharides

PUBLICATION-DATE: January 3, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Defrees, Shawn	North Wales	PA	US	
Johnson, Karl	Willow Grove	PA	US	

US-CL-CURRENT: 435/101; 435/84, 536/53

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	KWIC	Draw. Desc	Image
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END OF SEARCH HISTORY